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10/593,338	09/19/2006	Kazuhiro Oda	295978US0PCT	8966
22850 7590 02/27/2009 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER ROE, JESSEE RANDALL	
			ART UNIT 1793	PAPER NUMBER
			NOTIFICATION DATE 02/27/2009	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<i>Office Action Summary</i>	Application No.	Applicant(s)	
	10/593,338	ODA ET AL.	
	Examiner	Art Unit	
	JESSEE ROE	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2008.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 5 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5 and 7-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Status of the Claims*

Claims 5 and 7-9 are pending wherein claims 1-4, 6 and 10 are canceled.

### *Specification*

The amendment filed 16 December 2008 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "0.3-3.5% by mass manganese".

Applicant is required to cancel the new matter in the reply to this Office Action.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5 and 7-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In regards to claims 5 and 7-9, the instant specification provides support for the range of 0.3 to 3 weight percent manganese and 3.5 weight percent manganese (i.e. [0005] and Table 1). However, the instant specification does not provide support for greater than 3 weight percent to less than 3.5 weight percent manganese as would be included by the scope of instant claims 5 and 7-9 as there is no evidence that the invention was conceived with compositions between 3 and 3.5 weight percent manganese.

*Claim Rejections - 35 USC § 103*

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishi et al. (US 4,919,736).

In regards to claim 5, Nishi et al. ('736) disclose aluminum alloys having a composition relative to that of the instant invention as shown in the table below (col. 1, lines 58-68 and col. 3, lines 6-14).

Element	From Instant Claims (mass percent)	Nishi et al. ('736) (mass percent)	Overlap (mass percent)
Si	13 – 25	13.5 – 20	13.5 – 20
Cu	2 – 8	6 – 9	6 – 8
Fe	0.5 – 3	1.6 – 3	1.6 – 3
Mn	1 – 3.5	0.5 – 2	1 – 2
P	0.001 – 0.02	0.001 – 0.1	0.001 – 0.02
Ni	0.5 – 6	0 – 0.5	0.5
Al	balance	balance	balance

The Examiner notes that the aluminum alloy composition disclosed by Nishi et al. ('736) overlaps the composition of the instant invention, which is prima facie evidence of obviousness. MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed amounts of silicon, copper, iron, manganese, phosphorus, and nickel for an aluminum alloy from the amounts disclosed by Nishi et al. ('736) because Nishi et al. ('736) disclose the same utility throughout the disclosed ranges.

With respect to the recitation “wherein the total amount of the combination of iron, manganese, and nickel is 3.0% by mass or greater” as in lines 4-5 of claim 5, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177., 57 USPQ 117, *Saklatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of iron, manganese, and nickel would appear to require no more than routine investigation by those of ordinary skill in the art. *In re Austin, et al.*, 149 USPQ 685,688. It would have been obvious to one of ordinary skill in the art to select the claimed ranges of iron, manganese, and nickel from the aluminum alloys disclosed by Nishi et al. ('736) because Nishi et al. ('736) teach the same utility throughout the disclosed ranges.

With respect to the recitation “said aluminum alloy having a Young’s modulus of 90 GPa or more and a coefficient of linear thermal expansion of  $18 \times 10^{-6}/^{\circ}\text{C}$  or less” as recited in lines 5-8 of claim 5, the Examiner notes that the composition disclosed by

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Nishi et al. ('736) would be the same or substantially similar to that of the instant invention. Therefore, these properties would be expected. MPEP 2112.01 I.

In regards to claim 7, Nishi et al. ('736) disclose aluminum alloys having a composition relative to that of the instant invention as shown in the table below (col. 1, lines 58-68, col. 2, lines 58-63 and col. 3, lines 6-14).

Element	From Instant Claims (mass percent)	Nishi et al. ('736) (mass percent)	Overlap (mass percent)
Si	13 – 25	13.5 – 20	13.5 – 20
Cu	2 – 8	6 – 9	6 – 8
Fe	0.5 – 3	1.6 – 3	1.6 – 3
Mn	1 – 3.5	0.5 – 2	1 – 2
P	0.001 – 0.02	0.001 – 0.1	0.001 – 0.02
Ni	0.5 – 6	0 – 0.5	0.5
Mg	0.05 – 1.5	0 – 3	0.05 – 1.5
Al	balance	balance	balance

The Examiner notes that the aluminum alloy composition disclosed by Nishi et al. ('736) overlaps the composition of the instant invention, which is prima facie evidence of obviousness. MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed amounts of silicon, copper, iron, manganese, phosphorus, nickel and magnesium for an aluminum alloy from the amounts disclosed by Nishi et al. ('736) because Nishi et al. ('736) disclose the same utility throughout the disclosed ranges.

With respect to the recitation “wherein the total amount of the combination of Iron and manganese is 3.0% by mass or greater” as in lines 7-8 of claim 7, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, In re Cooper and Foley 1943 C.D. 357, 553 O.G.

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177., 57 USPQ 117, Sakalatwalla v. Marburg, 620 O.G. 685, 1949 C.D. 77, and In re Pilling, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of iron, manganese, and nickel would appear to require no more than routine investigation by those of ordinary skill in the art. In re Austin, et al., 149 USPQ 685,688. It would have been obvious to one of ordinary skill in the art to select the claimed ranges of iron, manganese, and nickel from the aluminum alloys disclosed by Nishi et al. ('736) because Nishi et al. ('736) teach the same utility throughout the disclosed ranges.

With respect to the recitation "said aluminum alloy having a Young's modulus of 90 GPa or more and a coefficient of linear thermal expansion of  $18 \times 10^{-6}/^{\circ}\text{C}$  or less" as recited in lines 8-10 of claim 7, the Examiner notes that the composition disclosed by Nishi et al. ('736) would be the same or substantially similar to that of the instant invention. Therefore, these properties would be expected. MPEP 2112.01 I.

Claims 5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horikawa et al. (JP 2000-204428A).

In regards to claim 5, Horikawa et al. (JP '428) disclose aluminum alloys having a composition relative to that of the instant invention as shown in the table on the following page(abstract, [0007] and [0010]).

Element	From Instant Claims (mass percent)	Horikawa et al. (JP '428) (mass percent)	Overlap (mass percent)
Si	13 – 25	11 – 16	13 – 16
Cu	2 – 8	3 – 7	3 – 7
Fe	0.5 – 3	0.2 – 1.5	0.5 – 1.5
Mn	1 – 3.5	0.2 – 1	1
P	0.001 – 0.02	0.003 – 0.015	0.003 – 0.015
Ni	0.5 – 6	3 – 7	3 – 6
Mg	-	0.5 – 2.0	-
Al	balance	balance	balance

The Examiner notes that the aluminum alloy composition disclosed by Horikawa et al. (JP '428) overlaps the composition of the instant invention, which is prima facie evidence of obviousness. MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed amounts of silicon, copper, iron, manganese, phosphorus, and nickel for an aluminum alloy from the amounts disclosed by Horikawa et al. (JP '428) because Horikawa et al. (JP '428) disclose the same utility throughout the disclosed ranges.

With respect to the language “consisting of” and the 0.5 to 2.0 weight percent magnesium as disclosed by Horikawa et al. (JP '428), the Examiner notes that Horikawa et al. (JP '428) disclose that 0.5 to 2.0 weight percent present in the aluminum alloy would remarkably improve mechanical strength [0010]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to omit the 0.5 to 2.0 weight percent magnesium where remarkable mechanical strength would not be required or desired. MPEP 2144.04 (II) and 2123 (II).

With respect to the recitation “wherein the total amount of the combination of iron, manganese, and nickel is 3.0% by mass or greater” as in lines 5-6 of claim 5, it is well settled that there is no invention in the discovery of a general formula if it covers a



composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177., 57 USPQ 117, *Sakalatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of iron, manganese, and nickel would appear to require no more than routine investigation by those of ordinary skill in the art. *In re Austin, et al.*, 149 USPQ 685,688. It would have been obvious to one of ordinary skill in the art to select the claimed ranges of iron, manganese, and nickel from the aluminum alloys disclosed by Horikawa et al. (JP '428) because Horikawa et al. (JP '428) teach the same utility throughout the disclosed ranges.

With respect to the recitation "said aluminum alloy having a Young's modulus of 90 GPa or more and a coefficient of linear thermal expansion of  $18 \times 10^{-6}/^{\circ}\text{C}$  or less" as recited in lines 5-8 of claim 5, the Examiner notes that the composition disclosed by Nishi et al. ('736) would be the same or substantially similar to that of the instant invention. Therefore, these properties would be expected. MPEP 2112.01 I.

In regards to claim 7, Horikawa et al. (JP '428) disclose aluminum alloys having a composition relative to that of the instant invention as shown in the table on the following page (abstract, [0007] and [0010]).

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Element	From Instant Claims (mass percent)	Horikawa et al. (JP '428) (mass percent)	Overlap (mass percent)
Si	13 – 25	11 – 16	13 – 16
Cu	2 – 8	3 – 7	3 – 7
Fe	0.5 – 3	0.2 – 1.5	0.5 – 1.5
Mn	1 – 3.5	0.2 – 1	1
P	0.001 – 0.02	0.003 – 0.015	0.003 – 0.015
Ni	0.5 – 6	3 – 7	3 – 6
Cr	0.1 – 1.0	0.01 – 0.3	0.1 – 0.3
Mg	-	0.5 – 2.0	-
Al	balance	balance	balance

The Examiner notes that the aluminum alloy composition disclosed by Horikawa et al. (JP '428) overlaps the composition of the instant invention, which is prima facie evidence of obviousness. MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed amounts of silicon, copper, iron, manganese, phosphorus, nickel, chromium and magnesium for an aluminum alloy from the amounts disclosed by Horikawa et al. (JP '428) because Horikawa et al. (JP '428) disclose the same utility throughout the disclosed ranges.

With respect to the language “consisting of” and the 0.5 to 2.0 weight percent magnesium as disclosed by Horikawa et al. (JP '428), the Examiner notes that Horikawa et al. (JP '428) disclose that 0.5 to 2.0 weight percent present in the aluminum alloy would remarkably improve mechanical strength [0010]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to omit the 0.5 to 2.0 weight percent magnesium where remarkable mechanical strength would not be required or desired. MPEP 2144.04 (II) and 2123 (II).

With respect to the recitation “wherein the total amount of the combination of Iron and manganese is 3.0% by mass or greater” as in lines 7-8 of claim 7, it is well

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settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177., 57 USPQ 117, *Sakalatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of iron and manganese would appear to require no more than routine investigation by those of ordinary skill in the art. *In re Austin, et al.*, 149 USPQ 685,688. It would have been obvious to one of ordinary skill in the art to select the claimed ranges of iron and manganese from the aluminum alloys disclosed by Horikawa et al. (JP '428) because Horikawa et al. (JP '428) teach the same utility throughout the disclosed ranges.

With respect to the recitation "said aluminum alloy having a Young's modulus of 90 GPa or more and a coefficient of linear thermal expansion of  $18 \times 10^{-6}/^{\circ}\text{C}$  or less" as recited in lines 8-10 of claim 7, the Examiner notes that the composition disclosed by Nishi et al. ('736) would be the same or substantially similar to that of the instant invention. Therefore, these properties would be expected. MPEP 2112.01 I.

In regards to claim 8, Horikawa et al. (JP '428) disclose aluminum alloys having a composition relative to that of the instant invention as shown in the table on the following page (abstract, [0007] and [0010]).

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Element	From Instant Claims (mass percent)	Horikawa et al. (JP '428) (mass percent)	Overlap (mass percent)
Si	13 – 25	11 – 16	13 – 16
Cu	2 – 8	3 – 7	3 – 7
Fe	0.5 – 3	0.2 – 1.5	0.5 – 1.5
Mn	1 – 3.5	0.2 – 1	1
P	0.001 – 0.02	0.003 – 0.015	0.003 – 0.015
Ni	0.5 – 6	3 – 7	3 – 6
Cr	0.1 – 1.0	0.01 – 0.3	0.1 – 0.3
Mg	-	0.5 – 2.0	-
Al	balance	balance	balance

The Examiner notes that the aluminum alloy composition disclosed by Horikawa et al. (JP '428) overlaps the composition of the instant invention, which is prima facie evidence of obviousness. MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed amounts of silicon, copper, iron, manganese, phosphorus, nickel and chromium for an aluminum alloy from the amounts disclosed by Horikawa et al. (JP '428) because Horikawa et al. (JP '428) disclose the same utility throughout the disclosed ranges.

With respect to the language “consisting of” and the 0.5 to 2.0 weight percent magnesium as disclosed by Horikawa et al. (JP '428), the Examiner notes that Horikawa et al. (JP '428) disclose that 0.5 to 2.0 weight percent present in the aluminum alloy would remarkably improve mechanical strength [0010]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to omit the 0.5 to 2.0 weight percent magnesium where remarkable mechanical strength would not be required or desired. MPEP 2144.04 (II) and 2123 (II).

With respect to the recitation “wherein the total amount of the combination of iron, manganese, and nickel is 3.0% by mass or greater” as in lines 5-6 of claim 8, it is

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well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177., 57 USPQ 117, *Sakalatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of iron, manganese, and nickel would appear to require no more than routine investigation by those of ordinary skill in the art. *In re Austin, et al.*, 149 USPQ 685,688. It would have been obvious to one of ordinary skill in the art to select the claimed ranges of iron, manganese, and nickel from the aluminum alloys disclosed by Horikawa et al. (JP '428) because Horikawa et al. (JP '428) teach the same utility throughout the disclosed ranges.

With respect to the recitation "said aluminum alloy having a Young's modulus of 90 GPa or more and a coefficient of linear thermal expansion of  $18 \times 10^{-6}/^{\circ}\text{C}$  or less" as recited in lines 6-7 of claim 7, the Examiner notes that the composition disclosed by Nishi et al. ('736) would be the same or substantially similar to that of the instant invention. Therefore, these properties would be expected. MPEP 2112.01 I.

In regards to claim 9, Horikawa et al. (JP '428) disclose aluminum alloys having a composition relative to that of the instant invention as shown in the table on the following page (abstract, [0007] and [0010]).

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Element	From Instant Claims (mass percent)	Horikawa et al. (JP '428) (mass percent)	Overlap (mass percent)
Si	13 – 25	11 – 16	13 – 16
Cu	2 – 8	3 – 7	3 – 7
Fe	0.5 – 3	0.2 – 1.5	0.5 – 1.5
Mn	1 – 3.5	0.2 – 1	1
P	0.001 – 0.02	0.003 – 0.015	0.003 – 0.015
Ni	0.5 – 6	3 – 7	3 – 6
Cr	0.1 – 1.0	0.01 – 0.3	0.1 – 0.3
Mg	-	0.5 – 2.0	-
Al	balance	balance	balance

The Examiner notes that the aluminum alloy composition disclosed by Horikawa et al. (JP '428) overlaps the composition of the instant invention, which is prima facie evidence of obviousness. MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed amounts of silicon, copper, iron, manganese, phosphorus, nickel, chromium and magnesium for an aluminum alloy from the amounts disclosed by Horikawa et al. (JP '428) because Horikawa et al. (JP '428) disclose the same utility throughout the disclosed ranges.

With respect to the language “consisting of” and the 0.5 to 2.0 weight percent magnesium as disclosed by Horikawa et al. (JP '428), the Examiner notes that Horikawa et al. (JP '428) disclose that 0.5 to 2.0 weight percent present in the aluminum alloy would remarkably improve mechanical strength [0010]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to omit the 0.5 to 2.0 weight percent magnesium where remarkable mechanical strength would not be required or desired. MPEP 2144.04 (II) and 2123 (II).

With respect to the recitation “wherein the total amount of the combination of iron, manganese, and nickel is 3.0% by mass or greater” as in lines 7-8 of claim 9, it is

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well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177., 57 USPQ 117, *Sakalatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of iron, manganese, and nickel would appear to require no more than routine investigation by those of ordinary skill in the art. *In re Austin, et al.*, 149 USPQ 685,688. It would have been obvious to one of ordinary skill in the art to select the claimed ranges of iron, manganese, and nickel from the aluminum alloys disclosed by Horikawa et al. (JP '428) because Horikawa et al. (JP '428) teach the same utility throughout the disclosed ranges.

With respect to the recitation "said aluminum alloy having a Young's modulus of 90 GPa or more and a coefficient of linear thermal expansion of  $18 \times 10^{-6}/^{\circ}\text{C}$  or less" as recited in lines 8-10 of claim 9, the Examiner notes that the composition disclosed by Nishi et al. ('736) would be the same or substantially similar to that of the instant invention. Therefore, these properties would be expected. MPEP 2112.01 I.

*Response to the Declaration filed Under 37 CFR §1.132*

The Declaration filed under 37 CFR §1.132 filed 16 December 2008 is insufficient to overcome the rejection of claims 5 and 7 based upon Nishi et al. ('736) as set forth in the last Office action because the Declaration's comparison of the Young's Modulus and Coefficient of Linear Thermal Expansion only includes one possible composition as disclosed by Nishi et al. ('736) and because the Declaration (see page 3) only compares the Young's Modulus and Coefficient of Linear Thermal Expansion for a composition

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disclosed by Nishi et al. ('736) with the instant invention wherein the Nishi et al. ('736) composition lacks nickel whereas the scope of Nishi et al. ('736) includes 0.5 weight percent or less nickel (abstract and col. 4, lines 64-68). To establish unexpected results over a claimed range, applicants should compare a sufficient number of tests both inside and outside the claimed range to show the criticality of the claimed range. MPEP 716.02(d)(II).

The Declaration filed under 37 CFR §1.132 filed 16 December 2008 is insufficient to overcome the rejection of claims 5 and 7-9 based upon Horikawa et al. (JP '428) because the Declaration's comparison does not show that omission of the magnesium disclosed by Horikawa et al. (JP '428) results in a retention of the properties disclosed in Horikawa et al. (JP '428). MPEP 2144.04(II)(A) and 2144.04(II)(B)..

### *Response to Arguments*

Applicant's arguments filed 16 December 2008 have been fully considered but they are not persuasive.

First, the Applicant primarily argues that the amendment to the specification changing the range of manganese from 0.5 to 3 weight percent to 0.5 to 3.5 weight percent does not introduce new matter.

In response, the instant specification does not provide support for greater than 3 weight percent to less than 3.5 weight percent manganese as would be included by the scope of instant claims 5 and 7-9 as there is no evidence that the invention was conceived with compositions between 3 and 3.5 weight percent manganese. To



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overcome the objection to the amendment to the specification and the rejection under 112, first paragraph, Applicant should submit a properly filed Declaration under 37 CFR §1.132 declaring the range of 0.5 to 3.0 weight percent manganese as a typographical error.

Second, the Applicant primarily argues that Horikawa et al. (JP '428) fails to suggest the consisting of language in claims 5, 7, 8 and 9 which excludes 0.5 -2.0 weight percent magnesium and therefore the rejection of Horikawa et al. (JP '428) should be withdrawn.

In response, the Examiner notes that omission of an element and its function is obvious if the function of the element is not desired. In the instant case, Horikawa et al. (JP '428) discloses that the addition of 0.5 to 2.0 weight percent magnesium results in a remarkable improvement of mechanical strength, high deposits of  $Mg_2Si$ , and high reinforcement. Thus, it would be obvious to omit magnesium where remarkable mechanical strength, high deposits of  $Mg_2Si$ , and high reinforcement would not be required or desired. MPEP 2144.04(II)(A).

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessee Roe whose telephone number is (571)272-5938. The examiner can normally be reached on Monday-Thursday and alternate Fridays 7:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Roy V. King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/  
Supervisory Patent Examiner, Art  
Unit 1793

JR